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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/829,314	04/21/2004	Shekar Mallikarjunaswamy	M076P1	5669

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EXAMINER

ABRAHAM, FETSUM

ART UNIT PAPER NUMBER

2826

DATE MAILED: 07/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/829,314

Applicant(s)

MALLIKARJUNASWAMY, SHEKAR

Examiner

Fetsum Abraham

Art Unit

2826

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) all is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **EXAMINER'S AMENDMENT**

As a preliminary matter, applicant's traverse to the restriction requirement has been considered but the argument has been found moot for the following reason:

Polysilicon gate is not the only gate material used in the art and there is no reason for other materials such as heavily doped semiconductors and metals can be used specifically in view of the mesh gate structure in the claimed invention. Metallic gate electrodes can be deposited in vacuum environment and patterned to have the claimed shape. The motivation of the claimed gate structure does not contradict with using a metallic or heavily doped gate material because effect of the claimed capacitive reduction was accomplished by the plugs and not by the gate material of the claimed invention. The gate material whether a polygate, a heavily doped semiconductor or a metal has no effect on capacitive reduction or on speeding up the MOSFET specifically in view of the effect of the claimed plug on both. Therefore, the claimed gate material can change without changing the effect of the plug on the overall structure.

Further, although reducing capacitance has direct effect on increasing device speed, reducing capacitance and increasing speed, however differ qualitatively as far as motivation of making a structure is concerned. Therefore, the motivation of the plug in claim 14 qualitatively differs from its motivation in the rest of the independent claims, thereby imposing different searches in different classes if all the claims were to be examined.

In view of the above, the restriction requirement stands active and the non-elected claim 17 has been cancelled.

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

In claim 7, last line, the "an inherent capacitance-reducing plug" is replaced by "a capacitance-reducing plug in each said intersection".

Authorization for this examiner's amendment was given in a telephone interview with Mr. Eugene H. Valetton 6/21/05.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-16, 18-22 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-18 of U.S. Patent No. 6,818,950. Although some of the conflicting claims may not be identical in terms of word to word matching they are not patentably distinct from each other because all claimed elements are addressed in the patent.

Claims 1-3 are addressed by claims 1-3 of the patent.

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Claims 4,5,14,15,17 are addressed by claims 6,14 of the patent.

Claim 6 is addressed by claims 1,5 of the patent.

Claims 7-13 are addressed respectively by claims 6-12 of the patent.

Claim 18 is addressed by claim 15 of the patent.

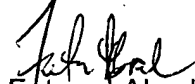
Claim 19 is addressed by claim 16 of the patent.

Claims 20,22 and 21 are addressed by claims 18 and 17 of the patent.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Refer to PN: 5,355,008.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fetsum Abraham whose telephone number is: 571-272-1911. The examiner can normally be reached on 8:00 - 18:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan J Flynn can be reached on 571-272-1915.



Fetsum Abraham  
6/21/05